

ABSTRACT OF THE DISCLOSURE

In the context of a measurement method in which scanning capacitance microscope(s) detecting surface(s) by means of electrically conductive probe(s) are used to measure electrical capacitance(s) of semiconductor sample surface(s), clean surface(s) are formed on semiconductor sample(s) by surface treatment; such semiconductor sample(s) are thereafter promptly placed in ultrahigh vacuum environment(s) (or inert gas environment(s)) and are maintained therein; and while still in this state, electrically conductive probe(s), on whose surface(s) stable insulating film(s) (e.g., vapor-deposited insulating diamond film(s)) are formed, are used to measure electrical capacitance(s) of semiconductor sample surface(s) while in ultrahigh vacuum environment(s) (or inert gas environment(s)).